Environmental Operations, Inc.
CLEARING THE WAY

October 17, 2013

Mr. Bruce Morrison
Project Manager
U.S. Environmental Protection Agency, Region 7
11201 Renner Boulevard
Lenexa, KS 66219

RE: EPA & MDNR Comments on the June 28, 2013 Baseline Groundwater Monitoring Semi-Annual Report for the Solutia – John F. Queeny Site, St. Louis, Missouri
EPA ID No. MOD 004 954 111

Dear Mr. Morrison:

Environmental Operations, Inc. (EOI), on behalf of SWH Investments, is responding to the U.S. Environmental Protection Agency Region 7 (EPA) and the Missouri Department of Natural Resources (MDNR) comment letter dated August 30, 2013 and our conversation on October 17, 2013, for the referenced subject.

Our response to comments letter dated September 26, 2013, indicated that there would be no data or data report for MW-28A for the February 2013 quarterly sampling event, as it was not due for sampling per the EPA-approved revised sampling schedule. Therefore, no column for the February event would be in the table for MW-28A. However, you noted that there was a transcription error on the Table for MW-28A, in which the data for MW-28B for February was inadvertently included on MW-28A. Enclosed is the revised page for MW-28A to replace it in the report. For quick reference, enclosed are the pages from the revised annual report dated March 27, 2013, with the current sampling schedule. MW-28A is highlighted.

If there are questions or concerns, please contact me by phone at (314) 241-0900, or via email at larryr@environmentalops.com.

Respectfully submitted,
ENVIRONMENTAL OPERATIONS, INC.

Lawrence C. Rosen

Lawrence C. Rosen, R.G.
Senior Project Manager

Attachment: Table for MW-28A
Groundwater Sampling Schedule

Copy: Ms. Christine Kump-Mitchell/MDNR
Mr. Rich Nussbaum/ MDNR
Mr. Mike House, Solutia

RCRA
528432

MW-28A
Former FF Building Area

Constituent	CAS	MCL*	Sample Date & Result	Sample Date & Result	Sample Date & Result	Sample Date & Result
			12/22/2011	4/3/2012	7/5/2012	10/1/2012
1,1,1-Trichloroethane	71-55-6	200	<5.0	<1.0	<1.0	dry
1,2-Dichloroethane	107-06-2	5	<5.0	<1.0	<1.0	dry
Acetone	67-64-1	12000	<50.0	<10.0	<10.0	dry
Benzene	71-43-2	5	<5.0	<1.0	<1.0	dry
Carbon disulfide	75-15-0	720	<25.0	<5.0	<5.0	dry
Chlorobenzene	108-90-7	100	<5.0	2.2	7.2	dry
Chloroform	67-66-3	80	<5.0	<1.0	<1.0	dry
cis-1,2-Dichloroethene	156-59-2	70	<5.0	<1.0	17.9	dry
Ethylbenzene	100-41-4	700	<5.0	<1.0	<1.0	dry
Iodomethane	74-88-4	No RSL	<50.0	<10.0	<10.0	dry
Methylene chloride	75-09-2	5	<5.0	<1.0	<1.0	dry
Tetrachloroethene	127-18-4	5	<5.0	<1.0	<1.0	dry
Toluene	108-88-3	100	<5.0	<1.0	<1.0	dry
trans-1,2-Dichloroethene	156-60-5	100	<5.0	<1.0	<1.0	dry
Trichloroethene	79-01-6	5	<5.0	<1.0	<1.0	dry
Vinyl chloride	75-01-4	2	<5.0	<1.0	1.1	dry
Xylene (Total)	1330-20-7	10000	<15.0	<3.0	<3.0	dry

*Results and MCL reported in ug/L. If no MCL, Tap Water RSL is used

Results highlighted in gray exceed MCL, excluding events with detection limits above the MCL

"<" indicates result below the reported detection limit

"-" indicates no data

8 CONCLUSIONS AND RECOMMENDATIONS

The data obtained from the 47 wells comprising the baseline groundwater monitoring network have been sampled on a quarterly basis for one year in the majority of wells. Since monitoring was started, remediation tasks described in the Interim Measures Work Plan (IMWP) were initiated. This included the injection of RegenOx™ (Parts A and B), ORC Advanced™, and 3D MicroEmulsion™ with Bio Dechlor™ into the subsurface to promote the chemical oxidation and aerobic or anaerobic biodegradation of the COCs in the Former FF Building Area, the Former Acetanilides Production Area, and the Former Bulk Chemical Storage Area.

The results indicated that the initial application of these injection products has been reasonably effective, locally achieving either 75% reduction or MCL levels in some locations, and in other locations promoting plume stabilization. Consequently, evaluation of additional treatment was being pursued to broaden the achievement of the remedial goals in those areas that indicated the need, consistent with the IMWP, and to consider the potential for rebound. The data also reveal that there appear to be two isolated locations which are considered to be source areas rather than representations of contaminant migration. The two locations are associated with MW-19 and MW-38A, respectively. The design for additional treatment will consider those areas.

On the basis of the collected data, we are proposing to modify the sampling schedule for the groundwater network as shown in the following table:

Monitoring Area	Monitoring Location ID and Criteria	Frequency
Former FF Building Area	**Fill and Silty Clay Unit**	
	MW-2B - Background and side-gradient	Annually
	MW-39A - Background	Annually
	MW-3 - Source Area Well	Annually
	LPZ-2 - Source Area Well	Semi-annually
	LPZ-4 - Source Area Well	Quarterly
	LPZ-5 - Source Area Well	Quarterly
	MW-28A - Downgradient Well	Semi-annually
	MW-30A - Downgradient Well	Quarterly
	MW-36A - Downgradient Well	Quarterly
	MW-38A - Downgradient Well	Quarterly

Monitoring Area	Monitoring Location ID and Criteria	Frequency
Former FF Building Area	**Sand Unit**	
	MW-39B - Background and up-gradient	Annually
	MW-2A - Background and side-gradient	Annually
	MW-28B - Downgradient Well	Quarterly
	MW-30B - Downgradient Well	Quarterly
	MW-36B - Downgradient Well	Quarterly
	MW-38B - Downgradient Well	Quarterly
	REC-1 - Source Area Well	Quarterly
	REC-4 - Source Area Well	Semi-annually
	Bedrock Unit	
	OBW-1 - Source Area Well	Quarterly
	OBW-2 - Source Area Well	Quarterly
	OBW-3 - Downgradient Well	Quarterly
Former Bulk Chemical Storage Area	**Fill and Silty Clay Unit**	
	HW-2 - Background Well	Annually if accessible
	VW-1 - Source Area Well	Quarterly
	VW-2 - Source Area Well	Quarterly
	MW-24A - Source Area Well	Quarterly
	MW-25A - Source Area Well	Semi-annually
	FBCSA-MW-5 - Source Area Well	Quarterly
	MW-32A-Downgradient Well	Semi-annually
	MW-33A-Downgradient Well	Semi-annually
	Sand Unit	
	HW-1 - Background Well	Annually if accessible
	VW-2B - Source Area Well	Semi-annually
	MW-24B - Source Area Well	Quarterly
	MW-25B - Source Area Well	Semi-annually
	MW-31B - Downgradient Well	Semi-annually
	MW-32B - Downgradient Well	Semi-annually
	MW-33B - Downgradient Well	Semi-annually

Monitoring Area	Monitoring Location ID and Criteria	Frequency
	MW-34B - Downgradient Well	Semi-annually
Former Acetanilides Production Area	**Fill and Silty Clay Unit**	
	MW-15 - Background and downgradient	Semi-annually
	GM-1 - Source Area Well	Quarterly
	GM-2 - Source Area Well	Quarterly
	MW-4 - Downgradient Well	Quarterly
	MW-5 - Downgradient Well	Semi-annually
	MW-9 - Downgradient Well	Semi-annually
	MW-11A - Downgradient Well	Annually
	MW-13 - Downgradient Well	Semi-annually
	MW-19 - Downgradient Well	Quarterly
	MW-23 - Downgradient Well	Semi-annually

Note that a fifth quarter of sampling has been completed. This fifth round would constitute the annual event for wells at that recommended frequency, and the first round for the semi-annual wells. No change is recommended at this time for the analytical suite for the respective locations. After the second year, we will re-evaluate the sampling frequency and make recommendations to both the schedule and the wells that will be monitored.